Amendments to the Claims

A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (original) A method of relating one or more trigger actions with a multimedia signal (101), the method comprising the steps of

- providing at least one trigger time point (T_n; T_{n+1}) and for each trigger time point (T_n; T_{n+1}) providing at least one representation of least one associated trigger action (105), where each trigger time point (T_n; T_{n+1}) indicates a time point of the multimedia signal (101) for which the at least one associated trigger action is to be available during playback of the multimedia signal (101),
- for each given trigger time point (T_n; T_{n+1}) deriving a fingerprint (102) on the basis of a segment of the multimedia signal (101), where the segment of the multimedia signal (101) is unambiguously related with the given trigger time point (T_n; T_{n+1}), and
- associating the derived fingerprint (102) with the at least one associated trigger action.

2. (original) A method according to claim 1, characterized in that the method further comprises for each obtained trigger time point (T_n; T_{n+1}), storing the derived fingerprint (102) and the at least one representation of the at least one associated trigger action (105) in a first database (203).

3. (previously presented) A method according to claim 1, characterized in that the one or more derived fingerprints (102) and/or the at least one representation of at least one associated trigger action (105) for the multimedia signal (101) is transmitted to a playback-

device (300) via the Internet or in a side-channel of a broadcast channel or via some other channel or means.

4. (previously presented) A method according to claim 1, characterized in that the segment of the multimedia signal (101) is unambiguously related with the given trigger time point (T_n; T_{n+1}) according to:

- the segment of the multimedia signal (101) ending substantially at the given trigger time point (T_n; T_{n+1}),the segment of the multimedia signal (101) starting substantially at the given trigger time point (T_n; T_{n+1}),the segment of the multimedia signal (101) starting or ending at a predetermined distance before or after the given trigger time point (T_n; T_{n+1}), or
- the given trigger time point (T_n; T_{n+1}) being at a predetermined time point between a start and an end of the segment of the multimedia signal (101).

5. (original) A method of detecting one or more trigger actions in a multimedia signal (101), the method comprising the steps of:

- generating a fingerprint stream (104) on the basis of the multimedia signal (101),
- comparing a segment of the fingerprint stream (104) with one or more fingerprints (102) stored in a second database (203') in order to determine if a match exists or not between the segment and a fingerprint (102) in the second database (203'), the second database (203') further comprising for each stored fingerprint (102) at least one representation of at least one associated action (105), and
- if a match exists retrieving the at least one representation of the at least one associated action (105) associated with the matching fingerprint (102).

6. (original) A method according to claim 5, characterized in that said method further comprises the step of: executing the at least one associated action (105) associated with the matching fingerprint (102) at an appropriate trigger time point (T_n; T_{n+1}).

7. (original) A method according to claim 6, characterized in that the appropriate trigger time point (T_n; T_{n+1}) is given by an unambiguously relation with a segment of a multimedia signal (101) used during generation of the matching fingerprint (102).

8. (previously presented) A method according to claim 1, characterized in that said multimedia signal (101) is an audio signal, a video signal or a combined audio/video signal.

9. (previously presented) A method according to claim 1, characterized in that said at least one associated trigger action (105) is selected from the group of:

- retrieving and displaying additional information on a display,
- retrieving and playing additional information via a speaker,
- playing another multimedia signal instead of said multimedia signal (101) for a predetermined or variable period of time,
- stopping/pausing, e.g. temporarily, display/play,
- executing other control commands, and/or
- prepairing the system for user inputs.

10. (previously presented) A method according to claim 1, characterized in that the derived fingerprint (102) and/or the fingerprint (102) in the second database (203') is an audio and/or video fingerprint (102).

11. (original) A multimedia device (200) for relating one or more trigger actions with a multimedia signal (101), the device comprising

- means (202; 204) for providing at least one trigger time point (T_n; T_{n+1}) and for each trigger time point (T_n; T_{n+1}) providing at least one representation of least one associated trigger action (105), where each trigger time point (T_n; T_{n+1}) indicates a time point of the multimedia signal (101) for which the at least one associated trigger action is to be available during playback of the multimedia signal (101),
- a fingerprint generator (202) adapted to for each given trigger time point (T_n; T_{n+1}) deriving a fingerprint (102) on the basis of a segment of the multimedia signal (101), where the segment of the multimedia signal (101) is unambiguously related with the given trigger time point (T_n; T_{n+1}), and
- means (204) for associating the derived fingerprint (102) with the at least one associated trigger action.

12. (original) A device according to claim 11, characterized in that the device further comprises a first database (203) having stored the derived fingerprint (102) and the at least one representation of the at least one associated trigger action (105) for each obtained trigger time point (T_n; T_{n+1}).

13. (previously presented) A device according to claim 11, characterized in that the device further comprises a transmitter (204) for transmitting the one or more derived fingerprints (102) and/or the at least one representation of at least one associated trigger action (105) for the multimedia signal (101) to a playback-device (300) via the Internet or in a side-channel of a broadcast channel or via some other channel or means.

14. (previously presented) A device according to claim 11, characterized in that the segment of the multimedia signal (101) is unambiguously related with the given trigger time point (T_n; T_{n+1}) according to:

the segment of the multimedia signal (101) ending substantially at the given trigger time point (T_n; T_{n+1}),

- the segment of the multimedia signal (101) starting substantially at the given trigger time point (T_n; T_{n+1}),
- the segment of the multimedia signal (101) starting or ending at a predetermined distance before or after the given trigger time point (T_n; T_{n+1}), or
- the given trigger time point (T_n; T_{n+1}) being at a predetermined time point between a start and an end of the segment of the multimedia signal (101).

15. (original) A audio and/or video playback device (300) for detecting one or more trigger actions in a multimedia signal (101) comprising:

- means (302) for generating a fingerprint stream (104) on the basis of the multimedia signal (101),
- means (302) for comparing a segment of the fingerprint stream (104) with one or more fingerprints (102) stored in a second database (203') in order to determine if a match exists or not between the segment and a fingerprint (102) in the second database (203'), the second database (203') further comprising for each stored fingerprint (102) at least one representation of at least one associated action (105), and
- means (302) for, if a match exists, retrieving the at least one representation of the at least one associated action (105) associated with the matching fingerprint (102).

16. (original) A evice according to claim 15, characterized in that said device further comprises: means (303) for executing the at least one associated action (105) associated with the matching fingerprint (102) at an appropriate trigger time point (T_n; T_{n+1}).

17. (original) A device according to claim 16, characterized in that the appropriate trigger time point (T_n; T_{n+1}) is given by an unambiguously relation with a segment of a multimedia signal (101) used during generation of the matching fingerprint (102).

18. (previously presented) A device according to claim 11, characterized in that said multimedia signal (101) is an audio signal, a video signal or a combined audio/video signal.

19. (previously presented) A device according to claim 11, characterized in that said at least one associated trigger action (105) is selected from the group of:

- retrieving and displaying additional information on a display,
- retrieving and playing additional information via a speaker,
- playing another multimedia signal instead of said multimedia signal (101) for a predetermined or variable period of time,
- stopping/pausing, e.g. temporarily, display/play,
- executing other control commands, and/or
- prepairing the system for user inputs.

20. (previously presented) A device according to claim 11, characterized in that the derived fingerprint (102) and/or the fingerprint (102) in the second database (203') is an audio and/or video fingerprint (102).

21. (previously presented) A computer readable medium having stored thereon instructions for causing one or more processing units to execute the method according to claim 1.